

U.S. National Stage Application  
Based on International Application No. PCT/US2004/030024

In the Claims

Kindly amend the claims as follows:

1. (original) An orthopedic implant comprising an interpositional arthroplasty implant adapted to be positioned within an orthopedic joint in order to provide an improved combination of wear resistance, congruence, and cushioning.
2. (original) An implant according to claim 1 wherein the implant comprises an interpositional arthroplasty implant for insertion into a knee joint.
3. (original) An implant according to claim 2 wherein the implant comprises a plurality of biomaterials, including a first biomaterial providing a first surface for use in apposition to femoral bone, and a second biomaterial providing a second surface for use in apposition to tibial bone, wherein the first biomaterial provides improved wear resistance as compared to the second biomaterial and the second biomaterial provides improved congruence and cushioning as compared to the first biomaterial.
4. (original) An implant according to claim 3 wherein the first and second biomaterials each comprise polymeric biomaterials, wherein the biomaterials each meets or exceeds the requirements of ISO 10993 with respect to cytotoxicity, sensitization, genotoxicity, chronic toxicity, and carcinogenicity.
5. (original) An implant according to claim 4 wherein the first and second polymeric biomaterials are independently selected from the group consisting of polyurethanes having different physical properties.
6. (original) An implant according to claim 5 wherein the first and second polymeric biomaterials independently comprise polyurethane compositions having respective wear resistance, congruency and cushioning properties.
7. (original) An implant according to claim 6 wherein the implant has a substantially kidney bean shape in plan and includes at least one tibial projection.

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8. (original) An implant according to claim 7 wherein the first surface is generally concave and the second surface is generally convex.

9. (cancelled)

10. An implant according to claim 3 wherein the first biomaterial and the second biomaterial are mechanically interlocked with one another.

11-12. (cancelled)

14. (original) An implant according to claim 3 wherein the first biomaterial comprises a polyurethane having a Shore hardness of at least about 60 D or more, and the second biomaterial comprises a polyurethane having a Shore hardness of at least about 60 D or less.

15-41. (cancelled)

42. (currently amended) An orthopedic implant according to claim 3 comprising an interpositional arthroplasty implant adapted to be positioned within an orthopedic joint in order to provide an improved combination of wear resistance, congruence, and cushioning, wherein the implant includes a polyurethane, and further wherein the urethane is loaded with a drug that can be eluted over time into the surrounding joint or bone.

43-56. (Cancelled)

57. (new) An implant according to claim 3, wherein either or both of the first and second biomaterials are independently selected from the group consisting of polymers, metals, and ceramics.

58. (new) An implant according to claim 3, wherein the first biomaterial is selected from the group consisting of metals, ceramics, and polymers having a hardness of

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about 60 Shore D or more and the second biomaterial is selected from the group consisting of polyurethanes having a hardness of about 60 Shore D or less.

59. (new) An implant according to claim 3, wherein the first biomaterial comprises a metal.

60. (new) An implant according to claim 59, wherein the metal is selected from the group consisting of stainless steel, cobalt chromium alloy, titanium, titanium alloy, and tanatalum.